SONY

TRINITRON® COLOR TV

(CABLE COMPATIBLE TV) KV2780R

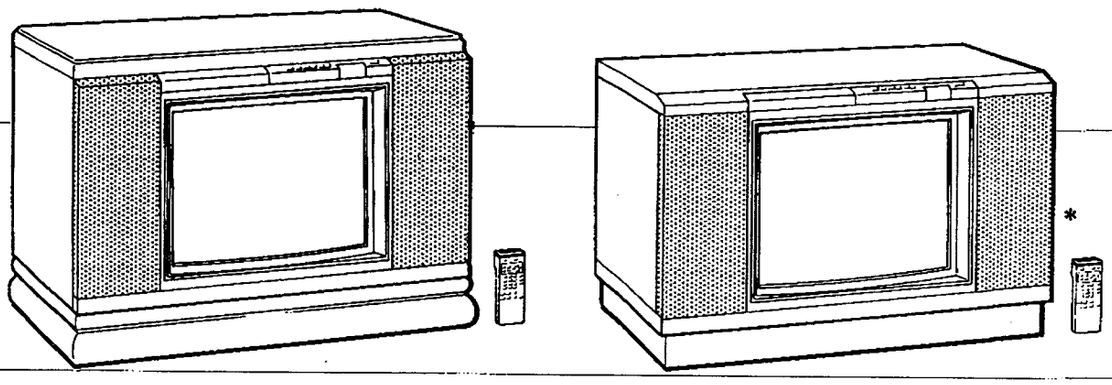
OPERATING INSTRUCTIONS

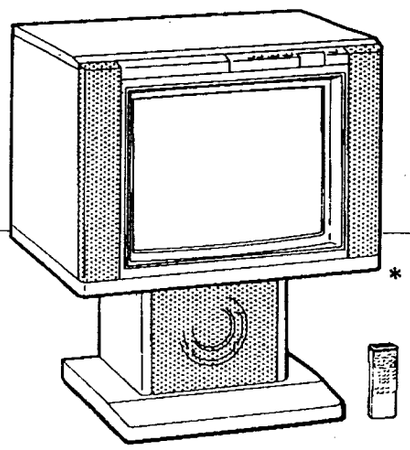
Welcome to the advanced world of Sony TV. For the best results and the utmost satisfaction from your new set, please read this manual thoroughly and retain it for future reference.

OWNER'S RECORD

The model and serial numbers are located at the rear. Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. _____ Serial No. _____





*available only in the U.S.A.

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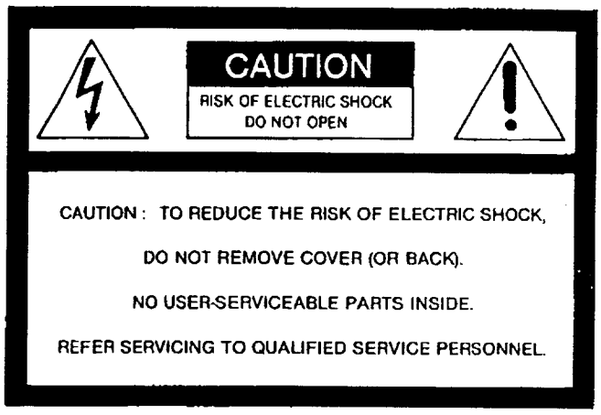
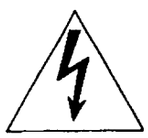
This manual covers three models. The appearance differs, however, the operation panel design and control buttons arranged are the same.

WARNING

To prevent fire or shock hazard, do not expose the set to rain or moisture.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

PRECAUTIONS

Safety

- Operate the set only on 120 V ac.
- One blade of the plug is wider than the other for the purpose of safety and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Should any liquid or solid object fall into the cabinet, unplug the set and have it checked by qualified personnel before operating it any further.
- Unplug the set from the wall outlet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

Installation

- To prevent internal heat build-up, do not block the ventilation openings.
- Do not install the set in a hot or humid place or in a place subject to excessive dust or mechanical vibration.

Cleaning

Clean the set with a slightly damp soft cloth. Use a mild household detergent. Never use strong solvents such as thinner or benzine as they might damage the finish of the cabinet.

Repacking

Retain the original carton and packing materials for safe transport of this set in the future.

Use of this television receiver for other than private viewing of programs broadcast on UHF or VHF or transmitted by cable companies for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

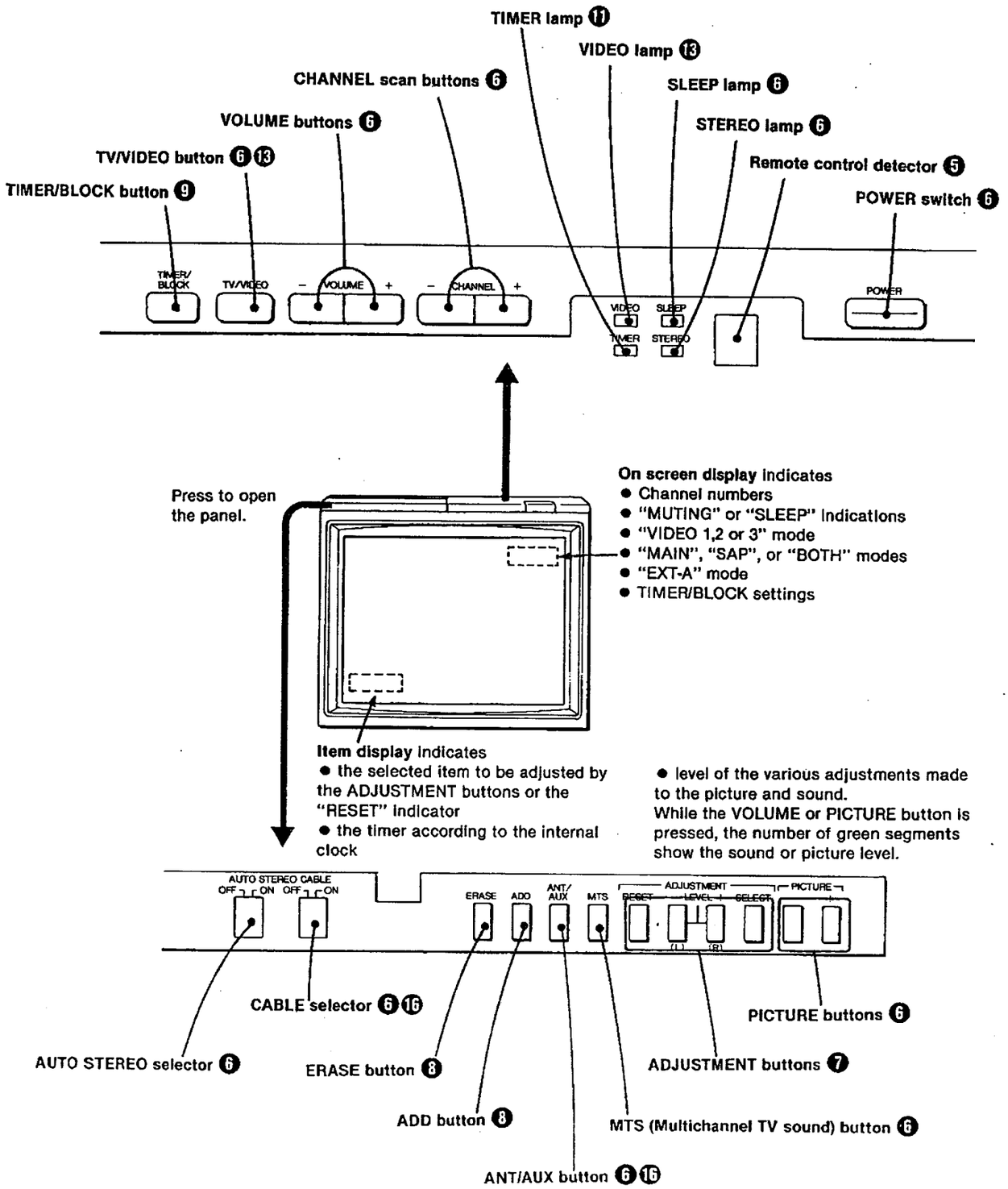
FEATURES

- **New Microblack™ Trinitron** picture tube with more finely pitched aperture grille for higher resolution, higher contrast picture
- **Multi-band VHF/UHF/CATV tuner** receives up to 125 cable channels for a total of 181 possible off-air and cable channels
- **Built-in MTS (Multichannel TV Sound) decoder** enables reception of stereo programs and SAP (Second Audio Program) broadcasts.*
- **Timer/Block** features automatic program starting and channel blocking.
- **External-audio selector** enables you to receive FM simulcasted programs with the addition of optional equipment.
- **Three built-in video and L/R audio line inputs** allow direct hook-up to VCRs, video disc players, video games or other audio/video sources. The AV unicon-nector receives combined video and L/R audio signals for one easy connection.
- **Jump button** makes it possible to switch quickly between channels and monitor two different programs alternately.
- **Sleep timer** automatically turns off the TV after one hour.
- **Full-function RM-732 Remote Commander** provides wireless control of all operating controls
- **On-screen displays** for easy reference to operating modes and adjustments
- **Dynamic Color™ circuitry** assures accurate, life-like skintones and pure whites
- **Dynamic Picture™ circuitry** automatically adjusts the picture contrast to produce more detail in bright and dark areas of the scene
- **Colorpure Filter™** separately processes B/W picture information from color information to produce a dramatically sharper picture

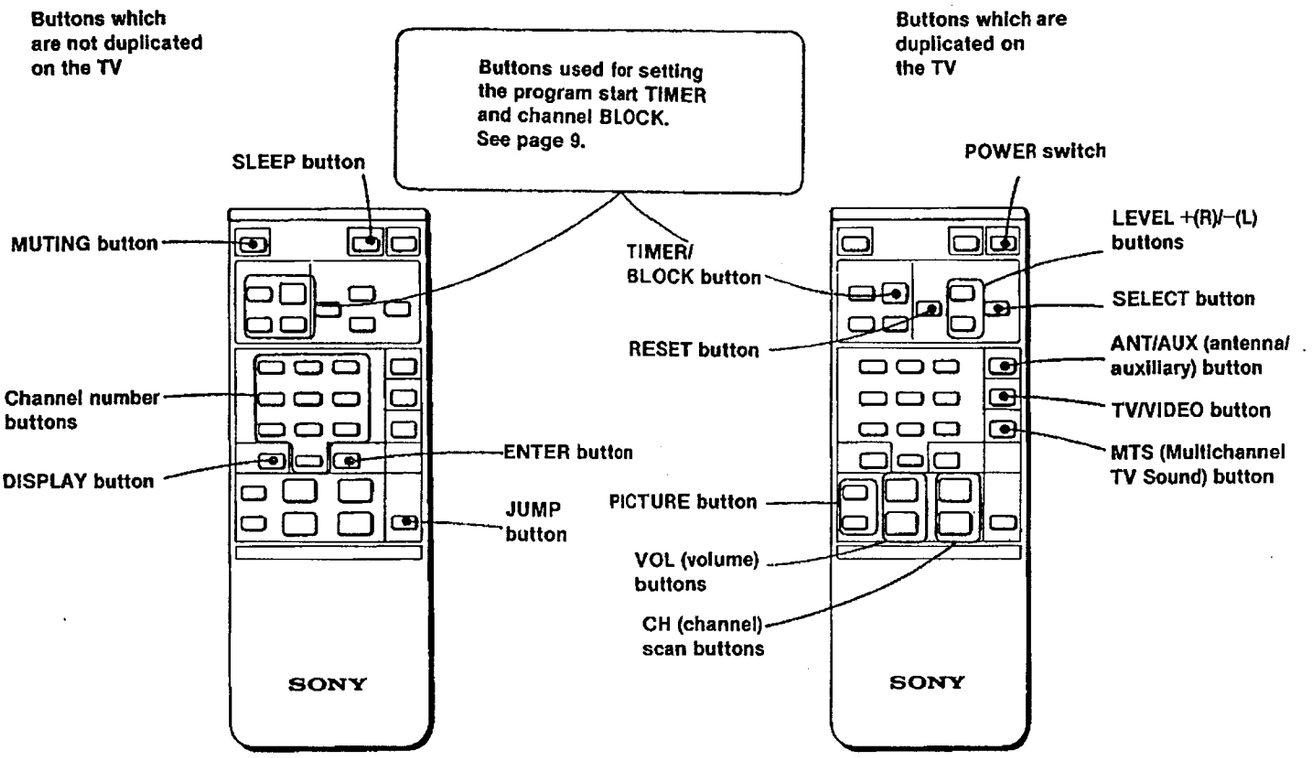
*Depends on the availability of off-air stereo broadcasts.

LOCATION OF CONTROLS

For further details, refer to the page numbers next to each item.
See page 12 for the location of jacks and controls on the back.



Remote commander RM-732

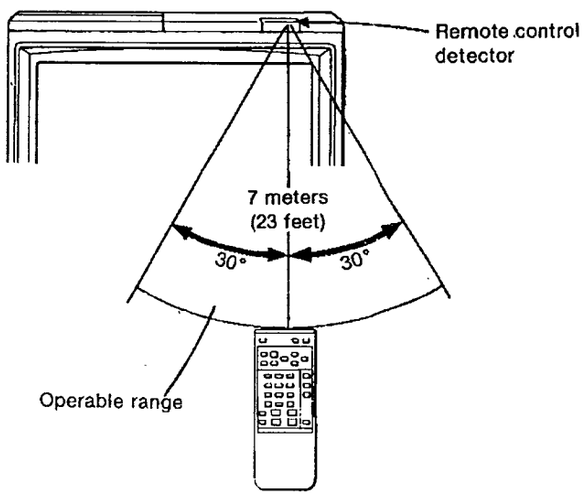


Installing batteries

1 Turn the Remote Commander face down, press the tab and lift the cover.
2 Place batteries in the Commander with the polarities in the correct directions, as illustrated inside the case.
3 Replace the cover.

Notes

- Use 2 size AA batteries (IEC designation R6).
- In normal operation, batteries will last up to half a year. If the set does not operate properly, the batteries might be exhausted. Replace all with new ones.
- To avoid damage from possible battery leakage, remove the batteries for extended unused periods.
- Be sure that there are no obstructions between the Commander and the TV.
- Operable range is limited.



OPERATION

VIEWING TV PROGRAMS

This TV set is capable of receiving normal VHF and UHF broadcasts plus cable TV channels. (See "Cable TV channel chart" below.)

Usually the Remote Commander is all that is needed to operate the TV set in everyday use.

Cable TV channel chart*
Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to this chart.

Number on this TV	1	5	6	14	15	16	17
Corresponding CATV channel	A–8	A–7	A–6	A	B	C	D

18	19	20	21	22	23	24	25	26	27	28	29	30
E	F	G	H	I	J	K	L	M	N	O	P	Q

31	32	33	34	35	36	37	38	39	.....	.....	93	94
R	S	T	U	V	W	W+1	W+2	W+3	.....	.....	W+57	W+58

95	96	97	98	99	100	101	102	.....	.....	123	124	125
A–5	A–4	A–3	A–2	A–1	W+59	W+60	W+61	.....	.....	W+82	W+83	W+84

Check with your local cable TV company for more complete information on the available channels.

*The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

Preparation
Make sure the following are properly set.
- On-screen "VIDEO 1, 2 or 3" or "EXT-A" indicators and the VIDEO lamp should be off.
  (Press TV/VIDEO button as many times as necessary until they go out.)
- AUTO STEREO selector should be set to ON.
  Depending on the channel to be viewed, check the following and change as necessary.
- CABLE selector
  For VHF and UHF channels, set to OFF.
  For cable TV channels, set to ON.
- On-screen "AUX"* indicator
  (Press ANT/AUX button to change as necessary.)
  For VHF, UHF and regular cable TV channels:
  The indicator should be off.
  For pay cable TV channels:
  The indicator should be displayed.

*The displays, "VIDEO" "EXT-A" or "AUX" indicate that signals fed in through the VIDEO 1/2/3 INPUT jacks, the external audio jacks or through the AUX terminals are being received.

1 **Press POWER to turn on the TV.**
The channel number will be displayed on the screen and the SLEEP lamp will light up for several seconds.
2 **Select channels in one of the following two ways.**
- Press the numeral(s) of the channel and then press ENTER.
  Ex. To select channel 6, press 6 and then ENTER.
  To select channel 125, press 1, 2, 5 and then ENTER.
  If you pressed a wrong numeral, wait for a few seconds and it will disappear. Then try again.
- Press CH "+" for higher-numbered channels and "–" for lower-numbered channels. Preset channels will appear in sequence. (For presetting desired channels, see page 9.)
  The channel display will remain on the screen for a few seconds.
  To keep the display on the screen, press DISPLAY.

3 **Adjust the volume and picture to your preference, if necessary.**
Press VOLUME "+" to increase volume, or "–" to decrease it.
Press PICTURE "+" to increase picture contrast, or "–" to decrease it.

To switch quickly between 2 channels, press JUMP.
Each time JUMP is pressed, the channel which appeared on the screen directly before is recalled. This button enables you to keep track of two programs alternately.

To mute the sound immediately, press MUTING. The "MUTING" display will appear and remain on the screen. Press it again to restore the sound to its previously-set level or press VOLUME +.

To turn off the set, press POWER again.

To have the set turn off automatically after one hour, press SLEEP. The "SLEEP" display will appear on the screen a few seconds and the SLEEP lamp on the TV will remain lit for one hour.

To cancel the sleep timer, press SLEEP again so that the SLEEP lamp goes out, or turn off the TV.

LISTENING TO MULTICHANNEL TV SOUND(MTS) BROADCASTS

To receive a stereo program
Normally set the AUTO STEREO selector to ON. In this position, the STEREO lamp on the TV will light up whenever a stereo broadcast is received.
To listen to the stereo sound, select the MAIN mode with the MTS button so that the on-screen MAIN indicator appears. The stereo sound will be heard from the left and right speakers.

Every push on the MTS button changes the indicator below the channel number as follows:

MAIN ⟶ SAP ⟶ BOTH

Select the appropriate mode according to various possible incoming broadcast signals.

When there is a SAP (Second Audio Program) broadcast
Select the SAP mode so that the SAP indicator will be displayed and only the SAP sound will be heard from both speakers.

To listen to both MAIN and SAP broadcasts
Select the BOTH mode so that the BOTH indicator is displayed. The MAIN and SAP sounds will come out from the left and right speakers respectively.
The MAIN sound becomes monaural(mixed) even if it is a stereo broadcast, as the sound comes only from the left speaker.

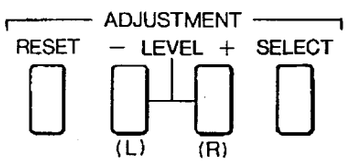
Notes
- The selected mode will be retained even after the power has once been turned off.
- There may be cases of stereo broadcasts where excessive "noise" will be heard due to a weak incoming signal. By setting the AUTO STEREO selector to OFF and returning to a monaural mode, the noise should be eliminated.
- When the SAP or BOTH mode is selected and there is no SAP broadcast, no sound is heard from the speakers (in BOTH mode).
- The SAP broadcast will always be transmitted with the MAIN broadcast.

ADDITIONAL PICTURE AND SOUND ADJUSTMENTS

(Hue: Color: Brightness: Sharpness: Treble: Bass: Balance)

Additional picture and sound adjustments besides the adjustments made by the PICTURE and VOL (volume) buttons can be made as follows although your TV comes with its picture and sound preset at the factory for optimum performance.

Controls are inside the front panel.



1 Press SELECT button consecutively until the on-screen display of the item you desire to adjust appears.
The display will change as follows:

HUE → COLOR → BRIGHT → SHARP → TREBLE → BASS → BALANCE → back to HUE

The display will disappear after a few seconds but will appear again when the next step is taken.

2 Press LEVEL +(R)/–(L) button to adjust the selected item.

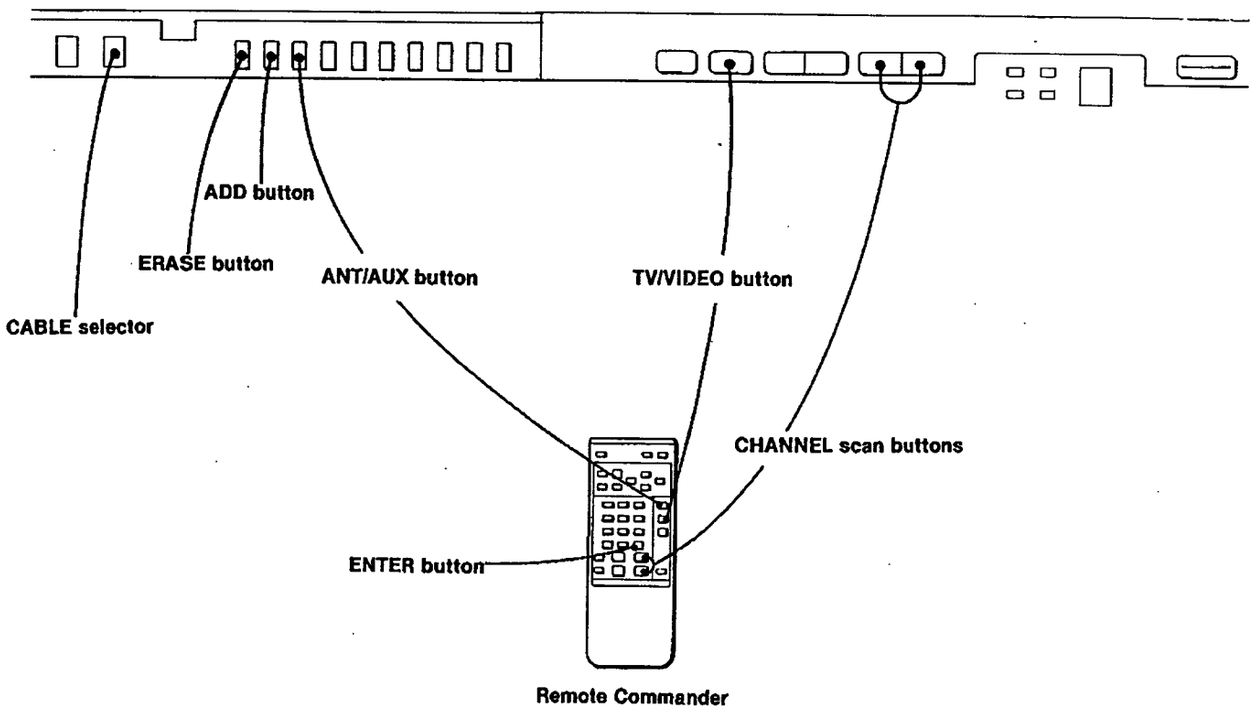
	Selected item	–/(L) Left button	+/(R) button
PICTURE ADJUSTMENT	HUE	Skin tones become purplish	Skin tones become greenish
	COLOR	For less color intensity	For more color intensity
	BRIGHT	For less brightness	For more brightness
	SHARP	For less sharpness	For more sharpness
SOUND ADJUSTMENT	TREBLE	To decrease treble response	To increase treble response
	BASS	To decrease bass response	To increase bass response
	BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

On-screen color-bar displays
When any of the above adjustments are made, a colored segmented bar appears on the screen to indicate the appropriate setting level.
- The HUE setting is indicated by the ratio of the red (left) and green (right) segments.
- The COLOR level is indicated by the number of red segments.
- The BRIGHT, SHARP, TREBLE and BASS levels are indicated by the number of green segments.
- The stereo BALANCE is indicated by the ratio of the green (left) and red (right) segments.

To clear adjustments
The adjustments made by LEVEL buttons can be all cleared and the factory preset levels will be restored at once when the **RESET button** is pressed. (A "RESET" indicator will appear for a few seconds.)

PRESETTING CHANNELS

Cotrols on the TV



Receivable channels of your set are:
VHF: 2–13
UHF: 14–69
Cable TV: 1–125
By adding and erasing channels, you can preset your TV so that only the desired channels appear in sequence when the CHANNEL +/– are pressed.

PREPARATION

1 **Turn on TV.**
2 **Make sure the following are properly set.**
On-screen "VIDEO 1, 2 or 3" or "EXT-A" indicators and the VIDEO lamp should be off.
(Press TV/VIDEO button as necessary until they go out.)
3 **According to the channel to be added or erased, check the following and make the necessary changes if any.**
- CABLE selector
  For VHF and UHF channels, set to OFF.
  For cable TV channels, set to ON.
- On-screen "AUX" indicator
  (Press ANT/AUX button as necessary.)
  For VHF, UHF and regular cable TV channels:
  The indicator should be off.
  For pay cable TV channels:
  The indicator should be displayed.

ADDING CHANNELS

1 **Select the channel to be added by pressing the channel number buttons and then ENTER.**
2 **Press ADD.**
A "+" indication will appear on the left of the channel display on the screen, indicating that the channel will appear in the proper numerical sequence when you press CHANNEL +/–.

Repeat steps **1** and **2** for other channels to be added.

ERASING CHANNELS

1 **Select the channel to be erased.**
2 **Press ERASE.**
A "–" indication will appear on the left of the channel display on the screen, indicating that the channel has been erased. When CHANNEL +/– are pressed, you will see that the channel is skipped over in the numerical sequence.

Repeat steps **1** and **2** for other channels to be erased.
To add erased channels again, follow the steps in "ADDING CHANNELS".

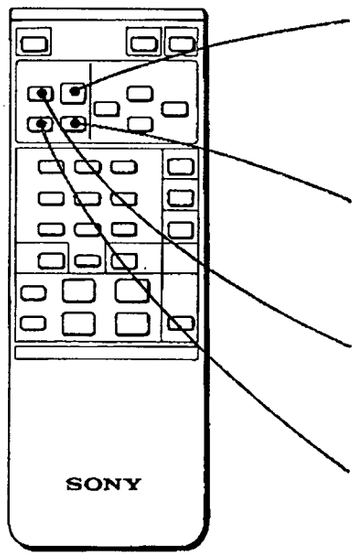
Note
If you erase a VHF or UHF channel, the cable TV channel with the same number will also be erased, and vice versa.

TIMER/BLOCK

Internal clock—Once the internal clock is set, the current time will appear on the screen. It is necessary to set the clock correctly to activate the program start TIMER and channel BLOCK.
Program start TIMER—Makes a program of your choice appear on the screen automatically.

Channel BLOCK—Blocks a channel from appearing on the screen for 12 hours. Use channel BLOCK to prevent children from watching undesirable programs.
The buttons used for setting the internal clock, program start TIMER and channel BLOCK are located on the Remote Commander.

Remote Commander



TIMER/BLOCK button
Use to change the "pages". See below.
This button and the TIMER/BLOCK button on the TV are operated in the same way.

AM/PM button
Each time this button is pressed, the on-screen "AM" and "PM" indications will appear alternately.

CLEAR button
Used to erase the time and channel number from the set's memory.

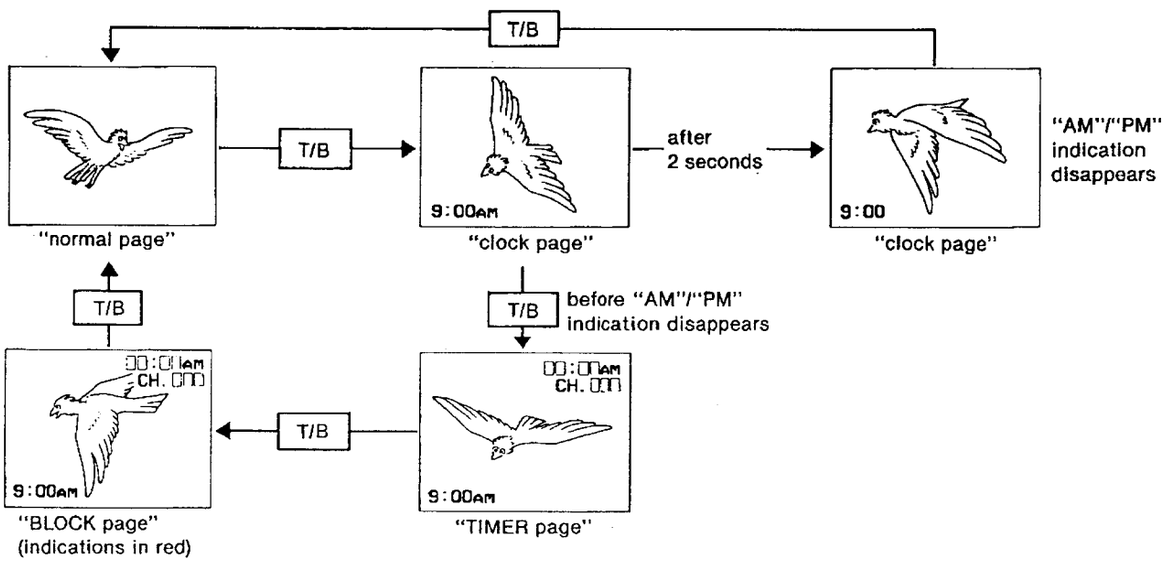
TIMER OFF/REPEAT button
Used to deactivate or reactivate the program start TIMER.

To set the internal clock, program start TIMER and channel BLOCK you must summon the corresponding "pages": "clock page", "TIMER page" and "BLOCK page".

To change the "pages", press the TIMER/BLOCK button as illustrated below.

The illustration shows how to change the "pages" after the clock has been set.
T/B stands for "Press the TIMER/BLOCK button."

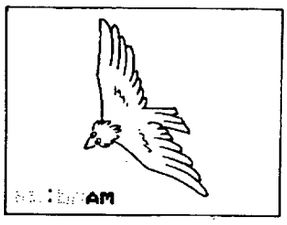
Notes
- All settings will be erased form the set's memory if the set is unplugged, or if a power failure occurs.
- The TIMER and BLOCK will operate only if the clock is set correctly.
- If the TIMER and BLOCK are set for overlapping times on the same channel, the blocked channel will appear on the screen at the time set on the TIMER.



HOW TO SET THE INTERNAL CLOCK

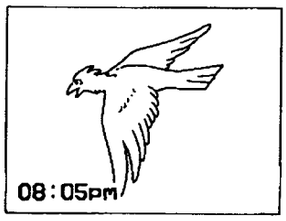
Ex. To set the clock to 8:05 PM, follow the steps below.

1 Press TIMER/BLOCK once to change from "normal page" to "clock page".

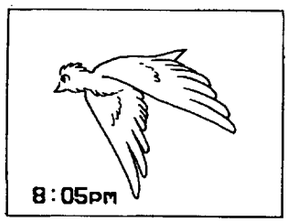


"clock page"

2 Press 0, 8, 0, 5, AM/PM (0 necessary).



3 If you have made a mistake, press CLEAR and return to step 2.
If you have performed the operation correctly, press ENTER.
The numbers will "wink" to indicate that the clock has been set.
(The 0 in front will disappear.)



The "AM"/"PM" indication will disappear after 2 seconds.

To summon "TIMER page", press TIMER/BLOCK before the "AM"/"PM" indication disappears.
To return to "normal page", press TIMER/BLOCK after the "AM"/"PM" indication has disappeared.

To reset the clock, summon "clock page" and press CLEAR before the "AM"/"PM" indication disappears. Then follow the steps above from step 2.

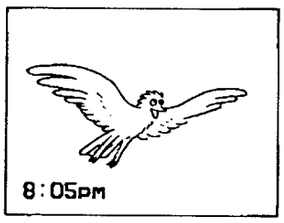
Note
12:00 AM stands for midnight.
12:00 PM stands for noon.

HOW TO SET THE PROGRAM START TIMER

Make sure that the clock has been set correctly before setting the program start TIMER.

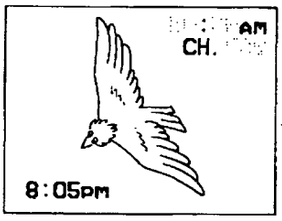
Ex. To set the TIMER for a program which begins at 10:30 PM on channel 12, follow the steps below.

1 Press TIMER/BLOCK once to change from "normal page" to "clock page".



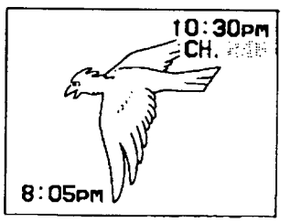
"clock page"

2 Press TIMER/BLOCK before the "AM"/"PM" indication disappears and summon "TIMER page".

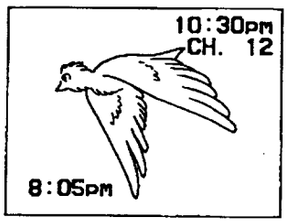


"TIMER page"

3 Press 1, 0, 3, 0, AM/PM, ENTER.
Numbers will "wink" to indicate that the time has been set.



4 Press 1, 2, ENTER (0 not necessary).
Numbers will "wink" to indicate that the channel has been set.



The TIMER lamp will light up to indicate that the TIMER has been set.
If you have made a mistake, press CLEAR and return to step 3.

At the preset time, the selected channel will appear on the screen and the TIMER lamp will go out. The TIMER will operate whether you are watching a TV program or a VCR playback, or even if you have turned off the TV.
If no button* is pressed within 2 hours after the preset time, an "OFF" indication will appear on the screen for 1 minute. If a button* is still not touched during the 1 minute, the TV will turn off automatically as a safety precaution.

*AUTO STEREO selector and HUE, COLOR, BRIGHT, SHARP, TREBLE, BASS and BALANCE controls excepted.

The TIMER operates only once, but the time and the channel will remain in the set's memory.
If, at a future date, you want to see the same channel at the same time, press TIMER OFF/REPEAT. The TIMER lamp will light up to indicate that the TIMER has been reactivated.

If you want to deactivate the TIMER, press TIMER OFF/REPEAT again so that the TIMER lamp goes out.
It is not necessary to summon "TIMER page" to use the TIMER OFF/REPEAT button. Furthermore, this button is effective even if the TV has been turned off.

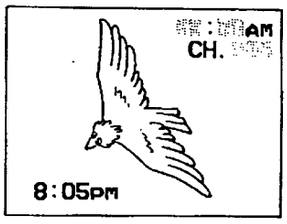
To clear the TIMER setting, summon "TIMER page" and press CLEAR.
To reset, clear the setting and follow the steps on the previous page from step 3.

HOW TO SET THE CHANNEL BLOCK

Make sure that the clock has been set correctly before setting the channel BLOCK.

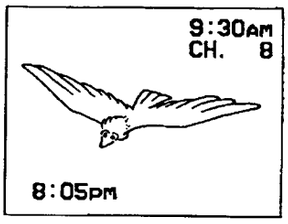
Ex. To set the BLOCK for a program which begins at 9:30 AM on channel 8, follow the steps below.

1 Press TIMER/BLOCK three times to change from "normal page" to "BLOCK page".



"BLOCK page"
(indications in red)

2 Press 0, 9, 3, 0, ENTER (0 necessary).
Numbers will "wink" to indicate that the time has been set.
Press 8, ENTER (0 not necessary).
Number will "wink" to indicate that the channel has been set.
Press the ANT/AUX button to check which channel you have selected. To select a pay cable TV channel, press the ANT/AUX button until on-screen "AUX" indicator appears for a few seconds.



The BLOCK has now been set.
If you have made a mistake, press CLEAR and return to step 2.

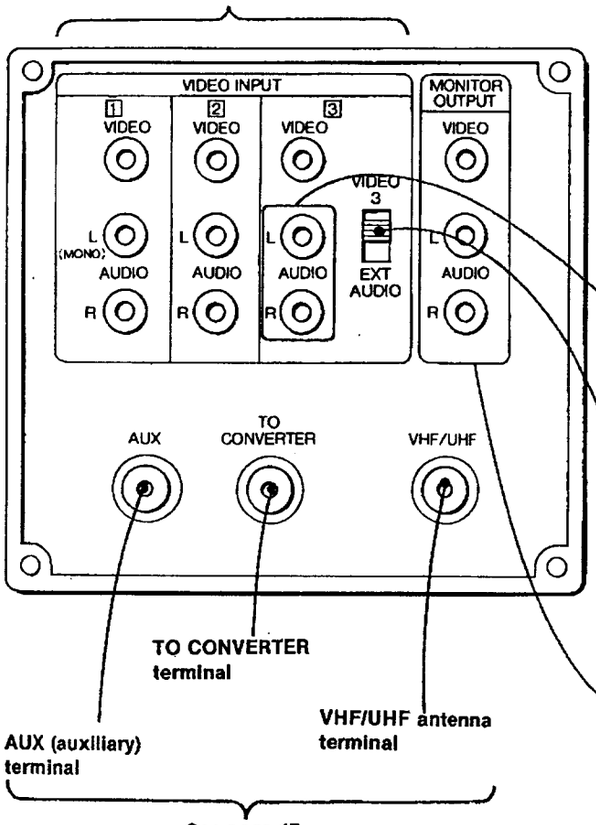
At the preset time, the picture of the selected channel will be blocked from view and the sound will be muted.
A red "BLOCKED" indication will appear on the screen while the channel is blocked.
Normal reception will be resumed after 12 hours.
To return to normal reception while the channel is blocked, recall "BLOCK page" and press CLEAR.

The BLOCK setting blocks a specified channel for the same 12-hour period everyday.

To clear the BLOCK setting, summon "BLOCK page" and press CLEAR.
To reset, clear the setting and follow the steps above from step 2.

APPLICATIONS WITH OTHER OPTIONAL EQUIPMENT

This unit is equipped with various input/output jacks and terminals for your desired equipment to be connected.
For details on the various optional connecting cables to be used, see "OPTIONAL AUDIO/VIDEO CONNECTING CABLES" on next page.



TO CONVERTER terminal

VHF/UHF antenna terminal

AUX (auxiliary) terminal

See page 17.

VIDEO INPUT 1/2/3 jacks
Connect to the video and audio output jacks of a VCR*, video disc player, etc.

VIDEO jack (phono, yellow)	⟶	to video output jack
AUDIO L jack (phono, white)	⟶	to audio L (left channel, monaural) output jack
AUDIO R jack (phono, red)	⟶	to audio R (right channel) output jack

*You will achieve better picture and sound quality than by connecting the VCR only to the antenna terminal.

- If your VCR is monaural, connect it **to the left audio jack of the VIDEO INPUT 1.** You can listen to the mixed left and right channels from the both left and right speakers of the TV.

External audio (L/R) jacks
An external audio source can be connected to these jacks to be combined with the picture of the selected TV program. Connect to the audio/line output of the audio source.

To view FM simulcasted programs, see page 16.

VIDEO 3/EXT(external)-AUDIO selector
If you have connected a VCR, video disc player, etc., to the VIDEO INPUT 3 jacks, set to "VIDEO 3". If you desire to mix the sound of the external audio source connected to the External audio jacks with the picture of the TV program, set to "EXT-AUDIO"

MONITOR OUTPUT jacks (phono type)
Connect to the video and audio input jacks of a video cassette recorder or color monitor. Either the TV or VCR signal selected by the TV/VIDEO button is supplied.
To record only the sound, connect the audio input jacks of a tape recorder to the AUDIO L and R jacks with a connecting cable such as the optional RK-74A.

CONNECTIONS

OPTIONAL AUDIO/VIDEO CONNECTING CABLES

The optional connecting cables to be used for connecting other equipment depend upon what type of audio and video jacks the equipment you desire to connect has. The following charts will help you choose which cable you should use.

Cables to be connected to the VIDEO INPUT 1*, 2 and 3 jacks

*The left (L) audio jack of the VIDEO INPUT 1 can feed the mixed left right channels.

The type of audio and video jacks of the equipment to be connected.	Connecting cable to be used
Video (phono-type) ◎ Audio (L, R) (phono-type) ◎ ◎	VMC-2P3
Video (phono-type) ◎ Audio (mini-type) ◎	VMC-1MP3 (1 m)/ -2MP3 (2m) or VMC-1S (1.2m)/-3S (3m) and RK-G80
Video (phono-type) ◎ Audio (phono-type) ◎	VMC-609MS or VMC-606M (1m)/-607M (2m)

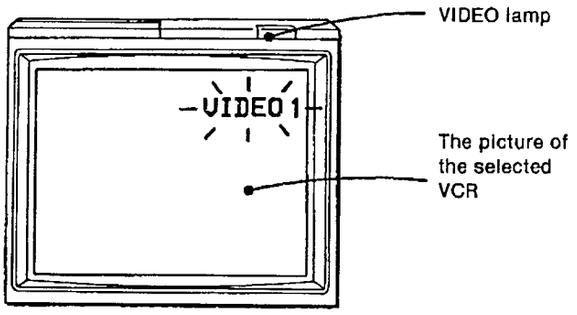
The following on the next page are few examples of the possible connections.

NOTES ON CONNECTION

- Before connecting, make sure that the power to each piece of equipment is turned off.
- The plugs should be fully inserted into the jacks. A loose connection may cause hum and noise.
- Match the color when connecting the plugs to the jacks.

ENJOYING THE PICTURE OF THE EQUIPMENT CONNECTED TO THE VIDEO 1/2/3 INPUT

Press the TV/VIDEO button until the "VIDEO 1, 2 or 3" indicator of the VIDEO input jacks from which you desire the signals to come from appears.
The VIDEO lamp will light up.



Every time you press the TV/VIDEO button, the display will change as follows:

VIDEO 1 → VIDEO 2 → VIDEO 3* → TV channel

Adjust the volume with the VOLUME buttons.

*Set VIDEO 3/EXT-AUDIO selector on the rear panel to "VIDEO 3" if "EXT-A" appears.

The channel number buttons on the Remote Commander or the channel scan buttons will not function while the VIDEO lamp is lit.

TO LISTEN TO THE SOUND OF THE AUDIO SOURCE CONNECTED TO THE EXTERNAL AUDIO JACKS

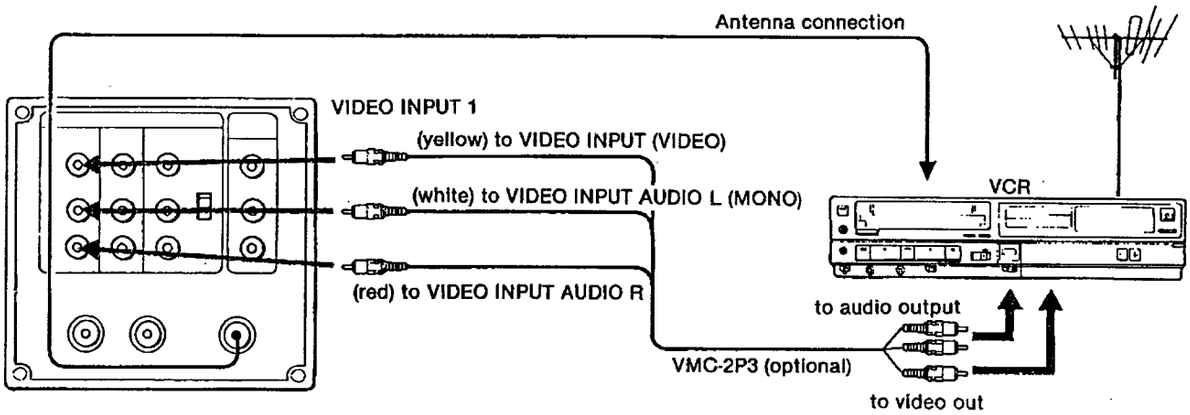
1 Set VIDEO 3/EXT-ADUIO selector to "EXT-AUDIO".
2 Press TV/VIDEO button as many times as necessary until the on-screen "EXT-A" appears.

VCR CONNECTION

Keep the VCR away from the TV, if the display or sound is affected.

Caution
Television programs, films, video tapes and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws.

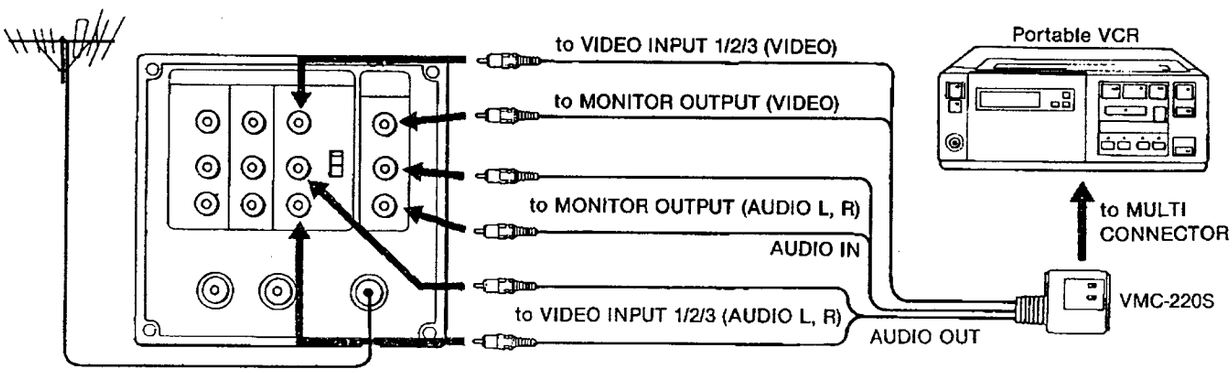
Connecting VCRs that are capable of receiving TV broadcasts



If you desire to connect another VCR, make the similar connection to the VIDEO INPUT 2 or 3 jacks. When you connect the VCR to the VIDEO 3 INPUT jacks, set VIDEO 3/EXT-AUDIO selector to "VIDEO 3".

With this connection, you will be able to...
- View the playback of tapes
- Record TV programs
- Record a TV program while viewing another

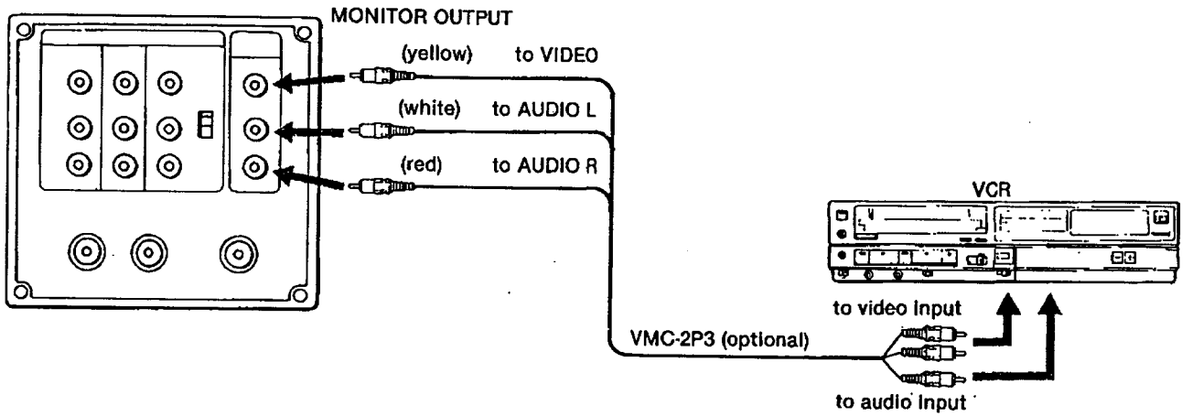
If your portable VCR is equipped with a MULTI CONNECTOR, use the optional VMC-220S video monitor cable and connect the VCR to the back as follows.



Note
If the screen displays an unusual flash when you stop the video tape playback, unplug the video and audio connections to the MONITOR OUTPUT jacks.

Editing tapes by connecting a VCR to the MONITOR OUTPUT jacks

If a VCR is connected to the MONITOR OUTPUT jacks besides another VCR, video disc player, etc., connected to the VIDEO INPUT 1/2/3 jacks, you will be able to edit your own tapes by recording the selected video source (including the TV programs) displayed on the screen. For selecting the desired video source, see page 13.

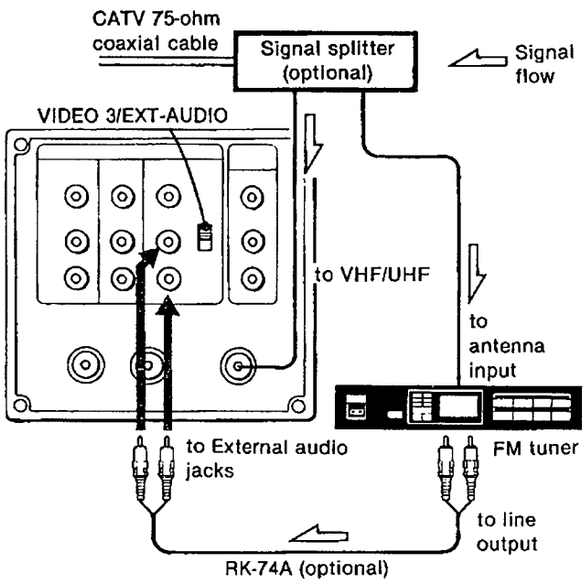


ENJOYING FM SIMULCASTED PROGRAMMING

Over-the-cable FM simulcasts

Cable TV companies have also started "simulcasting" some channels like MTV (Music Television) and selected movies in stereo over the cable. In the case of cable stereo programs, however, the audio signal is not sent over the air but sent on FM frequencies over the cable. By splitting the incoming cable signal and running it to both the TV tuner and an FM tuner/receiver, these cable programs can be enjoyed in stereo over the TV's double-sided speakers as shown below.

Connection



Preparation

Make sure the following are properly set.

- Set VIDEO 3/EXT-AUDIO to "EXT-AUDIO".
- Press TV/VIDEO button as many times as necessary so that the on-screen "EXT-A" indicator is displayed.
- The CABLE selector should be ON, and depending on the channel to be viewed, the on-screen "AUX" indicator should be as follows:
  (Press ANT/AUX button to change as necessary.)
  For regular cable TV channels:
  The indicator should be off.
  For pay cable TV channels:
  The indicator should be displayed.

Operation

1 Set the FM tuner to the frequency designated by the broadcaster.
2 Operate the TV the same as in usual TV viewing.

ANTENNA/CABLE CONNECTION

If your local broadcast signals are strong, an indoor antenna may be sufficient to obtain a clear picture.
If you cannot obtain satisfactory reception with an indoor antenna, using an outdoor antenna may be necessary. Cable TV reception is only possible by connecting a cable supplied by your local cable operator.

Prepare the antenna or cable end using the appropriate connector, and connect the antenna or cable to the antenna terminal of the TV. (See A, B or C below.)

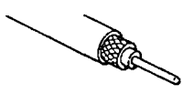
Note to CATV system installer in the U.S.A:

This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

A Combination VHF/UHF antenna,* VHF antenna, UHF antenna or CATV cable

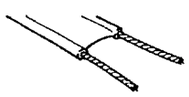
Select the proper connector according to the cable type.

When the cable is a 75-ohm coaxial type (round)

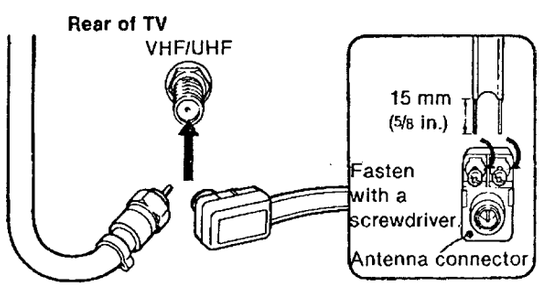


Use an optional F-type connector.

When the cable is a 300-ohm ribbon type lead-in (flat)



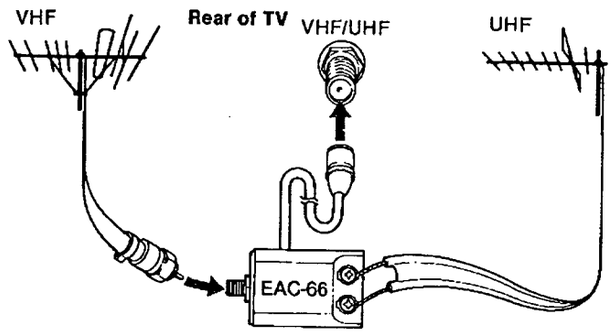
Attach the supplied antenna connector.



*Most combination antennas are equipped with a signal splitter. Take off the splitter and attach the proper connector.

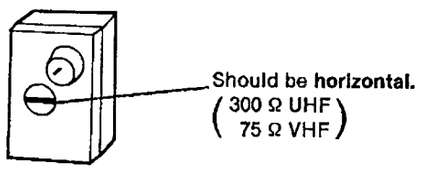
B **When both VHF and UHF antennas are connected**

Prepare the VHF antenna end using the appropriate connector as illustrated in **A**.
Attach an optional EAC-66 U/V mixer to the TV antenna terminal, and connect the cables to the U/V mixer.



When the cable is connected to the TV with the U/V mixer, snow and noise may appear in the pictures of the cable TV channels over 37 (W+1).

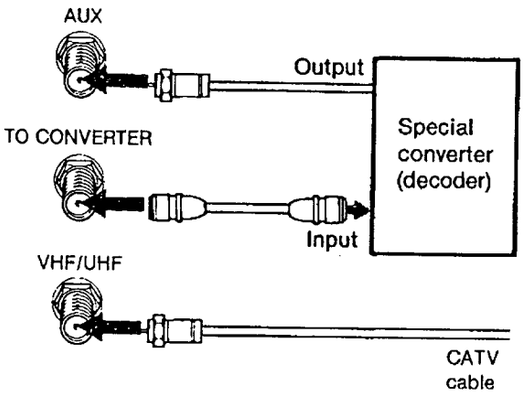
If the supplied antenna connector has a slot as illustrated below:
The antenna connector can be used also as a U/V mixer.
When connecting both 75-ohm VHF and 300-ohm UHF antennas, or 300-ohm UHF antenna only;



To turn the slot, use a coin or a similar object.

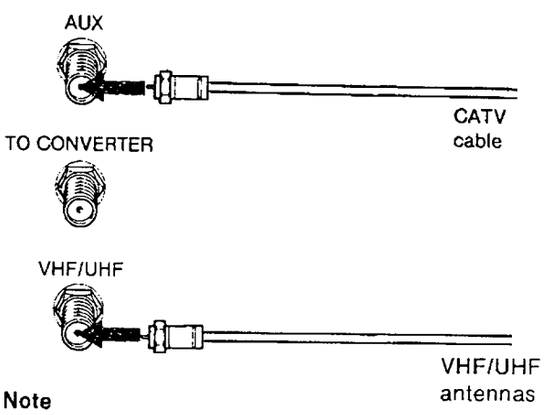
C **Cable with a special converter (decoder)**

Pay cable TV systems use scrambled or encoded signals and require special converters (decoders)* in addition to the normal cable connection. Connect the converter (decoder) with a 75-ohm coaxial cable (optional).



The special converter (decoder) will be supplied by the cable company.

D **When both VHF/UHF antennas and a CATV cable are connected**



Note
In this case, do not connect anything to the TO CONVERTER terminal.

SPECIFICATIONS

Television system
American TV standards

Channel coverage
VHF: 2–13
UHF: 14–69
Cable TV: 1–125

Picture tube
Microblack Trinitron
27-inch picture measured diagonally
28-inch picture tube measured diagonally
110-degree deflection

Antenna
75-ohm external antenna terminal for VHF/UHF/CATV

Inputs
VIDEO 1, 2, 3 INPUT (phono jacks)
Video: 1 V p-p, 75 ohms unbalanced, sync negative
Audio: 408mVrms (100% modulation, 47 kilohms)

Outputs
MONITOR OUTPUT (phono jack)
Video: 1 Vp-p, 75 ohms unbalanced, sync negative
Audio: 408mVrms (100% modulation)

Power requirements
120V ac, 60 Hz

Power consumption
165 W (max.)
4 W (in standby condition)

Accessories supplied
Remote Commander RM-732 with 2 size AA batteries
Antenna connector (300 ohm to 75 ohm matching transformer)

Optional accessories
Audio/Video connecting cables (See page 13)
U/V mixer EAC-66

Design and specifications subject to change without notice.

TROUBLESHOOTING

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed below.

	SYMPTOM	CHECK AND ADJUST
GENERAL	**Poor or no picture (screen not lit), good sound**	• Adjust PICTURE. • Adjust BRIGHT with the ADJUSTMENT buttons. • Check antenna/cable connections.
	Good picture, no sound	• Press VOLUME +. • Release MUTING on the Remote Commander. • Check that the MTS button is set correctly. • Are the speakers connected firmly? • Is the VIDEO 3/EXT-AUDIO selector set correctly?
	No picture (screen not lit); no sound	• Is POWER switched on? Power in outlet? • Check that the TV/VIDEO and/or RGB button is set correctly.
	No color	• Is it a color program? • Is the color adjustment correctly made with the SELECT and −/(L) or +/(R) buttons?
	Snow and noise only	• Is it an active or the correct channel? • Check the CABLE selector setting. • Check that the ANT/AUX button is set correctly. • Check antenna connections.
	Dotted lines or stripes	This is often caused by local interference. (ex. cars, neon signs, hairdryers etc.) Adjust antenna for minimum interference.
	Double images or ghosts	Reflections from nearby mountains or buildings often cause this problem. A highly directional outdoor antenna or CATV cable may improve the picture.
	Try another channel. It could be station trouble.	

	SYMPTOM	CHECK AND ADJUST
TIMER/BLOCK	**Program start TIMER and/or channel BLOCK does not operate properly.**	• Is the clock set correctly? • Is the setting correct? • Have you unplugged the set? Has a power failure occurred? If so, the settings will have been erased.
CONNECTED EQUIPMENT	**No picture and/or sound for the connected equipment**	• Check that the TV/VIDEO button is set correctly. • Are the connections made firmly? • Check that the VIDEO 3/EXT-AUDIO selector is set correctly. • Is the power of the connected equipment turned on? • Is the connected equipment set correctly?

If the problem still cannot be solved, contact your nearest service facility.